UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,561	08/28/2003	Necdet Uzun	CIS0189US	7599

33031 7590 04/12/2007		EXAMINER
CAMPBELL STEPHENSON ASCOLESE, LLP		BATES, KEVIN T
4807 SPICEWOOD SPRINGS RD.	ART UNIT	PAPER NUMBER
BLDG. 4, SUITE 201		
AUSTIN, TX 78759	2155	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/650,561	UZUN ET AL.
	Examiner	Art Unit	
	Kevin Bates	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 August 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>67-126</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>67-126</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)   Paper No(s)/Mail Date <u>12-1-03,12-20-04</u>.

4) ☐ Interview Summary (PTO-413)   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to a communication made on August 28, 2003.

The Preliminary Amendment was received on August 28, 2003.

The Information Disclosure Statements received December 1, 2003 and

December 20, 2004 have been considered.

The Power of Attorney has been received on April 8, 2004.

Claims 1-66 have been cancelled.

Claims 67 – 126 are pending in this application.

Claim Objections

Claims 79 and 80 are objected to because of the following informalities: neither

claims end in a period. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 72 and 115 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. The claims contain the limitation "in a memory

belonging to one of another MAC device" it is unclear in terms of the art, what memory

belonging to another MAC device is defined as.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 83 and 110-126 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 83 and 110 are directed at a readable medium containing instructions on a computer readable medium, where the medium is a signal. Signals are not patentable under 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 67-126 are rejected under 35 U.S.C. 102(e) as being anticipated by Knightly (2003/0163593).

Regarding claims 67, 101, and 110, Knightly teaches a method comprising:

providing a first queue corresponding to a first media access control (MAC) device to which data is to be transmitted over a network (Paragraph 48);

receiving data destined for at least one of the first MAC device and a client of the first MAC device (Paragraph 48);

storing at least a portion of the data destined for the at least one of the first MAC device and the client of the first MAC device in the first queue (Paragraph 48);

receiving information indicating a need to change an amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device (Paragraph 47);

selectively transmitting data stored in the first queue to the at least one of the first MAC device and the client of the first MAC device; wherein a rate at which the selectively transmitting is performed is based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device (Paragraph 48).

Regarding claim 85, Knightly teaches an apparatus comprising:

a first media access control (MAC) device operable to be coupled to a network (Paragraph 7);

a buffer coupled to the first MAC device and operable to receive data from the first MAC device (Paragraph 46);

a packet processor coupled to the buffer (Paragraph 46);

a first plurality of queues, wherein each of the first plurality of queues corresponds to a respective network station (Paragraph 48); and

at least one shaper circuit, the at least one shaper circuit being configured to

dequeue data stored in at least one of the first plurality of queues based at least in part

on at least a portion of information indicating a need to change an amount of data being

transmitted to the respective network station corresponding to the at least one of the

first plurality of queues (Paragraph 47-48).

Regarding claims 68, 102, 105, and 111, Knightly teaches the method of claims

67, 101, and 110 further comprising: providing a second queue corresponding to the

first MAC device to which data is to be transmitted over the network (Paragraph 48);

storing at least another portion of the data destined for the at least one of the first MAC

device and the client of the first MAC device in the second queue (Paragraph 48); and

selectively transmitting data stored in the second queue to the at least one of the first

MAC device and the client of the first MAC device (Paragraph 48); wherein a rate at

which the selectively transmitting of data stored in the second queue is performed is

based at least in part on one of: the at least a portion of the information indicating the

need to change the amount of data being transmitted to the at least one of the first MAC

device and the client of the first MAC device; and at least another portion of the

information indicating the need to change the amount of data being transmitted to the at

least one of the first MAC device and the client of the first MAC device (Paragraph 47-

48).

Regarding claims 69, 92, 103, and 112, Knightly teaches the method of claims

68, 85, 102, and 111 wherein the first queue is for data having a first priority level, and

wherein the second queue is for data having a second priority level (Paragraph 48).

Regarding claims 70, 93, and 113, Knightly teaches the method of claims 67, 92, and 110 further comprising: providing a second queue corresponding to a second MAC device to which data is to be transmitted over the network (Paragraph 48); receiving data destined for at least one of the second MAC device and a client of the second MAC device (Paragraph 48); storing at least a portion of the data destined for the at least one of the second MAC device and the client of the second MAC device in the second queue (Paragraph 48, wherein traffic from the second MAC device that is classified as B and C class are placed in the second queue); and selectively transmitting data stored in the second queue to the at least one of the second MAC device and the client of the second MAC device; wherein a rate at which the selectively transmitting of data stored in the second queue is performed is based at least in part on information indicating a need to change an amount of data being transmitted to the at least one of the second MAC device and the client of the second MAC device (Paragraph 47-48).

Regarding claims 71 and 114, Knightly teaches the method of claims 67 and 110 wherein the first queue is provided in a memory coupled to at least one of another MAC device and a client of the another MAC device (Paragraph 48).

Regarding claims 72, 96, and 115, Knightly teaches the method of claims 67, 85, and 110 wherein the first queue is provided in a memory belonging to one of another MAC device and a client of the another MAC device (Paragarph 48, wherein each MAC device in the network has a first queue).

Regarding claims 74 and 117, Knightly teaches the method of claims 67 and
110 wherein the information indicating a need to change the amount of data being
transmitted to the at least one of the first MAC device and the client of the first MAC
device is received from at least one of the first MAC device, the client of the first MAC
device, another MAC device, and a client of the another MAC device (Paragarph 160
and 163).

Regarding claims 75 and 118, Knightly teaches the method of claims 67 and
110 wherein the selectively transmitting data stored in the first queue further comprises
selectively transmitting data stored in the first queue in one of a first egress direction
and a second egress direction (Paragraph 48).

Regarding claims 76, 98, and 119, Knightly teaches the method of claims 67,
85, and 110 further comprising: receiving information indicating a need to change an
amount of data being transmitted on a first network link between the first MAC device
and another MAC device; selectively transmitting data being selectively transmitted to
the at least one of the first MAC device and the client of the first MAC device; wherein
another rate at which the selectively transmitting of data being selectively transmitted is
performed is based at least in part on at least a portion of the information indicating the
need to change the amount of data being transmitted on the first network link
(Paragraph 47 and 166).

Regarding claims 79 and 122, Knightly teaches the method of claims 67 and
110 further comprising: transmitting information indicating a need to change an amount

of data being transmitted to at least one of another MAC device and a client of the another MAC device (Paragraph 47).

Regarding claims 80, 87, 108, and 123, Knightly teaches the method of claims 79, 85, 101, and 122 further comprising: determining an extent to which a data buffer associated with the client of the another MAC device contains data; and preparing the information indicating the need to change the amount of data being transmitted to the at least one of the another MAC device and the client of the another MAC device (Paragraph 160 and 166).

Regarding claims 73, 77, 89, 95, 99, 104, 106, 116, and 120, Knightly teaches the method of claims 67, 76, 87, 98, 101, 105, and 110 wherein the information indicating a need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device includes at least one of: a MAC device address, a data transmission rate, a ramp factor, a threshold value, a network link bandwidth value, and a flag (Paragarph 160 and 163, a data transmission rate).

Regarding claims 78, 88, 90, 107, and 121, Knightly teaches the method of claims 67, 85, 87, 101, and 110 further comprising: receiving information indicating a need to change an amount of data being transmitted on a first network link between the first MAC device and another MAC device, wherein the rate at which the selectively transmitting is performed is further based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted on the first network link (Paragarph 47, 160, and 163).

Regarding claims 81, 86, and 124, Knightly teaches the method of claims 67, 85, and 110 wherein the network is at least one of a metropolitan area network (MAN) and a resilient packet ring (RPR) network (Paragraph 7).

Regarding claims 82, 91, and 125, Knightly teaches the method of claims 67, 85, and 110 wherein the information indicating a need to change an amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device is received in a resilient packet ring (RPR) fairness message (Paragraph 10).

Regarding claims 83 and 97, Knightly teaches the method of claim 67 encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of an electronic storage medium, a magnetic storage medium, an optical storage medium, and a communications medium conveying signals encoding the instructions (Paragraph 46, wherein the processor carries out the algorithm).

Regarding claims 84, 100, 109, and 126, Knightly teaches the method of claims 67, 85, 101, and 110 wherein the information indicating the need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device further comprises at least one of: information indicating the need to reduce the amount of data being transmitted, and information indicating the need to increase the amount of data being transmitted (Paragraph 67).

Regarding claim 88, Knightly teaches the apparatus of claim 87 wherein at least one of the first MAC device, the buffer, the packet processor, the at least one shaper

circuit, and the comparison circuit is further configured to prepare a message including information indicating a need to change an amount of data being transmitted to a network station that includes the first MAC device (Paragraph 47).

Regarding claim 94, Knightly teaches the apparatus of claim 93 wherein the at least a portion of the information indicating the need to change the amount of data being transmitted to the respective network station corresponding to the at least one of the second plurality of queues is the same as the at least a portion of the information indicating the need to change the amount of data being transmitted to the respective network station corresponding to the at least one of the first plurality of queues (Paragraph 48).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 6614805 issued to Raahemi, because it teaches a ring network which communicated rates upstream to control upstream rates.

U. S. Patent No. 7088675 issued to Meyer, because it teaches RPRs and fairness messages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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January 27, 2007

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